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Abstract

SAFETY IDEAS IN FRANCE AND THE INFLUENCE OF SAFETY DEMANDS ON REACTOR DESIGN

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This paper reviews the experience acquired in France on the question of reactor safety.

Since a special paper is being presented on reactors of the graphite-gas type, the safety of the other types studied in France is discussed here :

- heavy water-gas reactors,
- fast neutron reactors,
- water research reactors of the "swimming-pool" and "tank" types.

The safety rules peculiar to the different types are explained, with emphasis on their influence on the reactor designs and on the power limits they impose.

The corresponding safety studies are presented, particular stress being placed on the original work developed in these fields. Special mention is made of the experimental systems constructed for these studies : the reactor CABRI, pile loop for depressurization tests, loops outside the pile, mock-ups etc...

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